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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537,179

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Atsushi Mori

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22913

7590

11/13/2008

Workman Nydegger  
1000 Eagle Gate Tower  
60 East South Temple  
Salt Lake City, UT 84111

EXAMINER

DEGHAN, QUEENIE S

ART UNIT

PAPER NUMBER

1791

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/537,179	<b>Applicant(s)</b> MORI ET AL.	
	<b>Examiner</b> Queenie Dehghan	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21-23 and 25-31 is/are pending in the application.
- 4a) Of the above claim(s) 21, 30 and 31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21, 30 and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/16/07, 11/4/05</u>  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of Group II, species A in the reply filed on September 25, 2008 is acknowledged.

***Information Disclosure Statement***

2. The information disclosure statement filed July 16, 2007 discussing foreign office actions from China and Canada fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information disclosure statement has been placed in the application file, but the information referred to therein has not been considered.

***Specification***

3. The abstract of the disclosure is objected to because it no longer reflects the scope of the selected invention. Correction is required. See MPEP § 608.01(b).
4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is

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requested in correcting any errors of which applicant may become aware in the specification.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 21, 30 and 31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 21 and 30-31 recite "portions which run parallel to a longitudinal axis in succession so as to get a polygon columnar glass preform". There does not appear to be support for this limitation in the disclosure. If the Examiner has erred, please refer to page and line number in the specification that supports this limitation.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 30 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 30 recites

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*“an act of drawing a molded glass material from the mold by breaking up the mold to get a polygon columnar glass preform which has a plurality of concave portions on the periphery of a shape of cross section”.*

The term drawing is the melting of a preform and drawing a thin fiber from the melted portion of the preform. It is unclear how a molded glass can be drawn from the mold or how drawing is related to the breaking up of a mold, as recited in claim 30.

Furthermore, it is unclear what the limitation “which has a plurality of concave portions on the periphery” is referring to, the mold or the preform. Also, it is unclear what is meant by “on the periphery of a shape of cross section”. Is it the periphery of the preform or the preform has a shape of a cross section?

10. Claim 31 recites the limitations “the cladding” and “the inner wall” in line 3. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 21 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dai et al. (2006/0033983) in view of Jakobsen et al. (7,155,097). Dai et al. teaches a method for manufacturing an optical fiber comprising molding tellurite glass melt in a mold and then inserting the preform into jacket tube composed of tellurite glass ([0085]-[0087]). Note the limitation for the composition of the tellurite glass is recited in the preamble of the claims. A preamble is generally not accorded any patentable weight when the method steps do not depend on the preamble and are able to stand alone.

14. However, Dai does not teach a preform with concave portions or a mold with convex portions. Jakobsen et al. teach a method for manufacturing an optical fiber preform comprising providing a polygon columnar glass preform with a plurality of concave portions on the periphery that runs parallel to a longitudinal axis in succession (figure 4, col. 5 lines 28-62), wherein the preform is manufacture via a mold with a predetermined shape (col. 6 lines 28-31). Jakobsen also teaches inserting the preform into a cylindrical jacket tube (col. 18 line 66 to col. 19 line 8) and fiber drawing under a pressure to control or maintain the air holes in a gap between the glass preform and jacket tube (col. 19 lines 10-23). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the concave portions on the preform of Dai and to control the pressure within the gap between the preform and the tube in order to produce a microstructured optical fiber.

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15. Dai teaches a melting and molding method for forming the preform. It is known preforms made by casting or molding takes on the shape provided for by the mold. Jakobsen teaches using a mold with a predetermined shape to form the concave portions directly on the preform (col. 6 lines 28-31). Accordingly, in order to produce the concave portions as taught by Jakobsen in the preform of Dai, a it would have been obvious to one of ordinary skill in the art at the time of the invention to have expected a mold used for casting the preform of Dai to have a plurality of convex portions which run parallel to a longitudinal axis in succession in order to provide for a polygon columnar glass preform with plurality of concave portions that run parallel to a longitudinal axis, as taught by Jakobsen, while utilizing a direct method and minimizing the processing of the preform.

16. Regarding claim 30, Dai does not specifically mention the breaking up of the mold to remove the preform, however, it would have been obvious to one of ordinary skill in the art to expect the removal of a glass preform from a mold to require the separation or breaking up of the mold in order to remove the preform.

17. Regarding claim 31, Jakobsen teaches a preform with any desired number of concave portions, such as 4 (col. 5 lines 44-47). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilized a mold with any number of convex portions, such as four, to produce the desired preform with desired number of air holes, such as 4, because it is known to select the desired number of concave portions to produce a fiber with desired number of air holes depending on the particular application of the optical fiber, as suggested by Jakobsen.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Queenie Dehghan whose telephone number is (571)272-8209. The examiner can normally be reached on Monday through Friday 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven P. Griffin/  
Supervisory Patent Examiner, Art  
Unit 1791

Q Dehghan